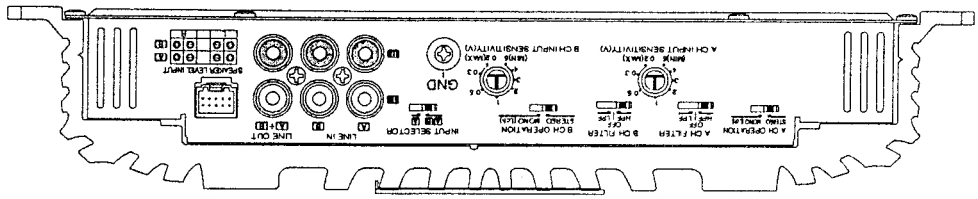
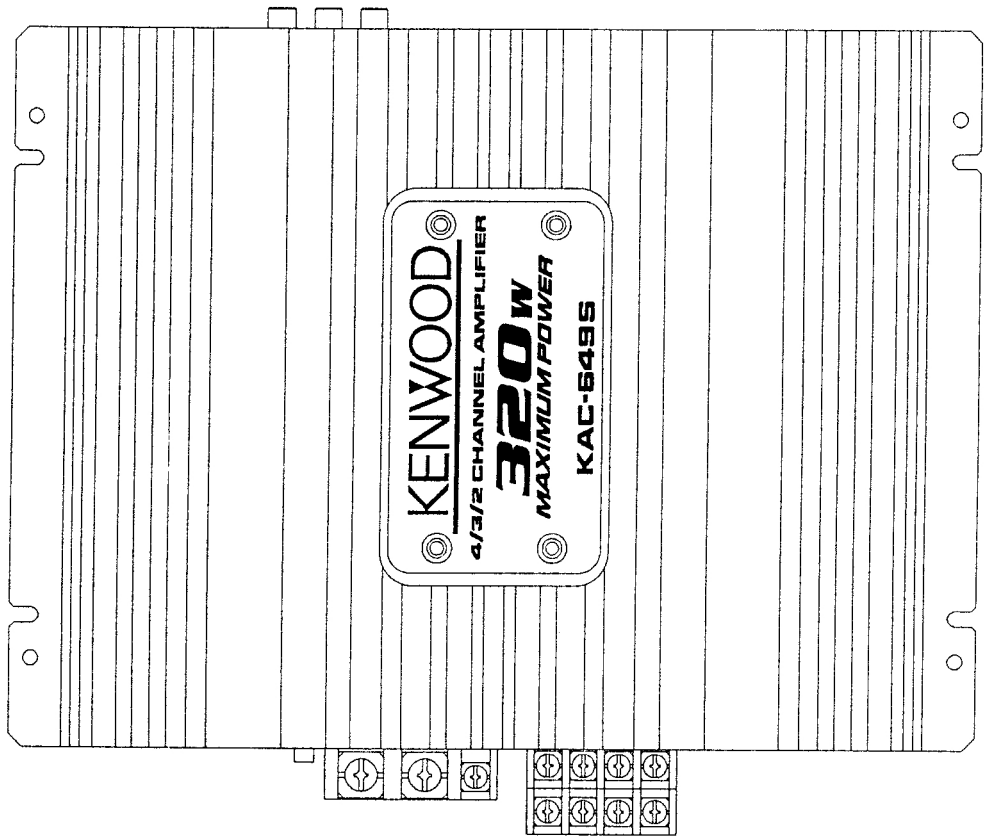
POWER AMPLIFIER

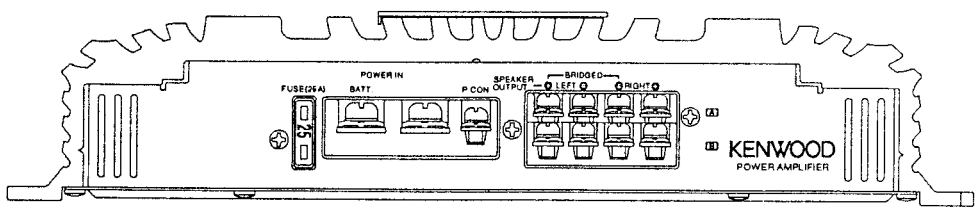
KAC-649S

SERVICE MANUAL

KENWOOD







KAC-649S

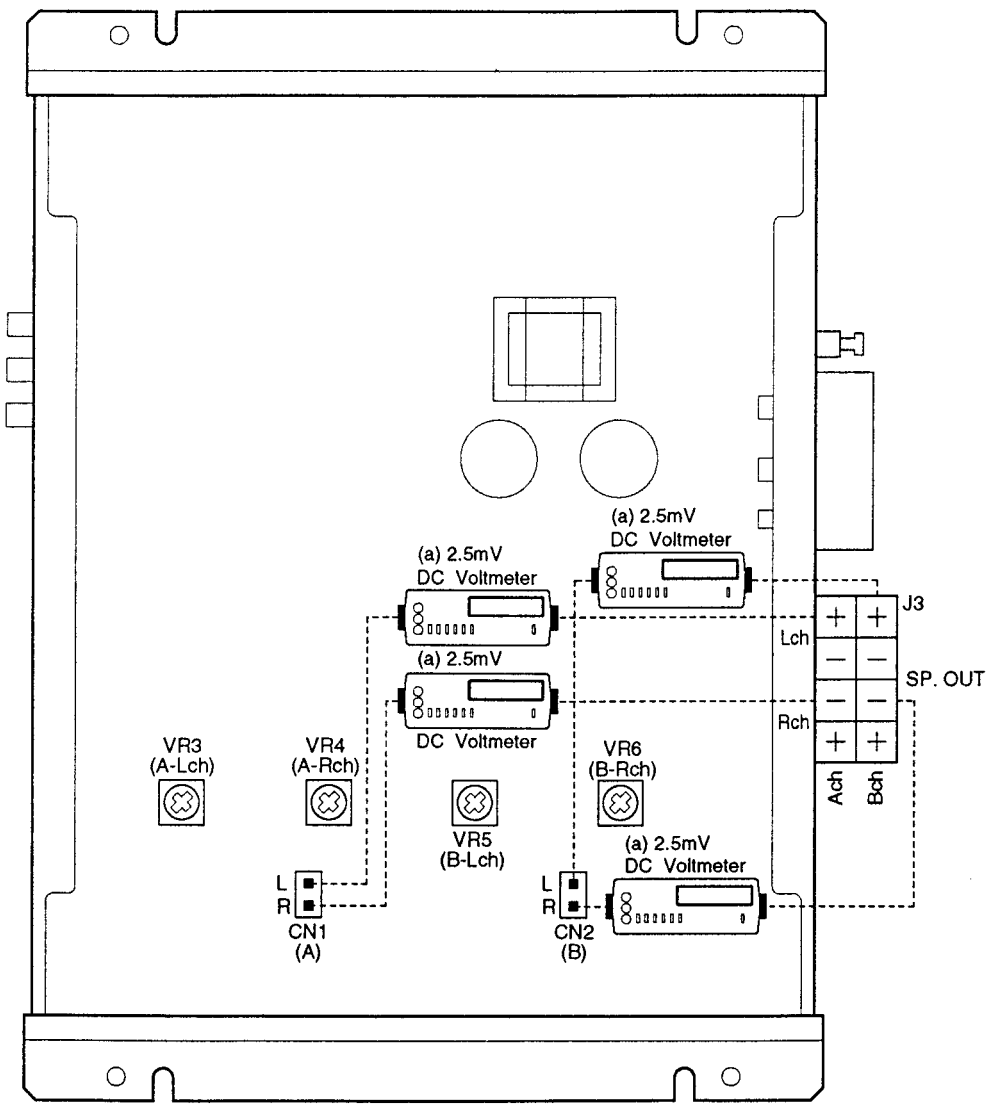
COMPONENT DESCRIPTION

AUDIO UNIT (X09-5420-10)

REF. No.	FUNCTION	OPERATION
Q1-4	MUTE	Decreases shock noise in first moment when P.CON. turns on or off.
Q5-12	DIFFERENTIAL AMPLIFIER	
Q13	RIPPLE FILTER	
Q14-17	DIFFERENTIAL AMPLIFIER	
Q18-21	TEMPERATURE COMPENSATION	Detects temperature of the heat sink, and protects bias current drift.
Q22-29	OVER-CURRENT PROTECTION	Detects over-current, and limits the power stage current.
Q30-37	POWER AMPLIFIER DRIVER	
Q38-45	POWER STAGE	
Q46	P.CON. DETECTION	Detects P.CON-ON, and turns Q47 on or off.
Q47	POWER SWITCH	Supplies power to IC5.
Q48	MUTE ON/OFF	Turns Q49 on or off.
Q49	MUTE DRIVER	
Q50,51	SWITCHING POWER STAGE	
Q52	OVER-CURRENT PROTECTION	The detected over-current stops IC5's working.
Q53	OVER-VOLTAGE PROTECTION	When over-voltage puts on BATT, Q53 turns P.CON. off.
Q54,55	CONSTANT VOLTAGE POWER SUPPLY	Supplies + and - 15V power.
Q56,57	SWITCHING DRIVER	
Q58-61	DIFFERENTIAL AMPLIFIER	
IC1,2	INPUT BUFFER / ISOLATION AMPLIFIER	Makes an input signal 6 more dB signal, and cancels automobile noise.
IC3,4	IC3,4 (1/2) : LPF IC3,4 (2/2) : INVERTER	
IC5	SWITCHING REGULATOR	Oscillator for DC/DC converter.

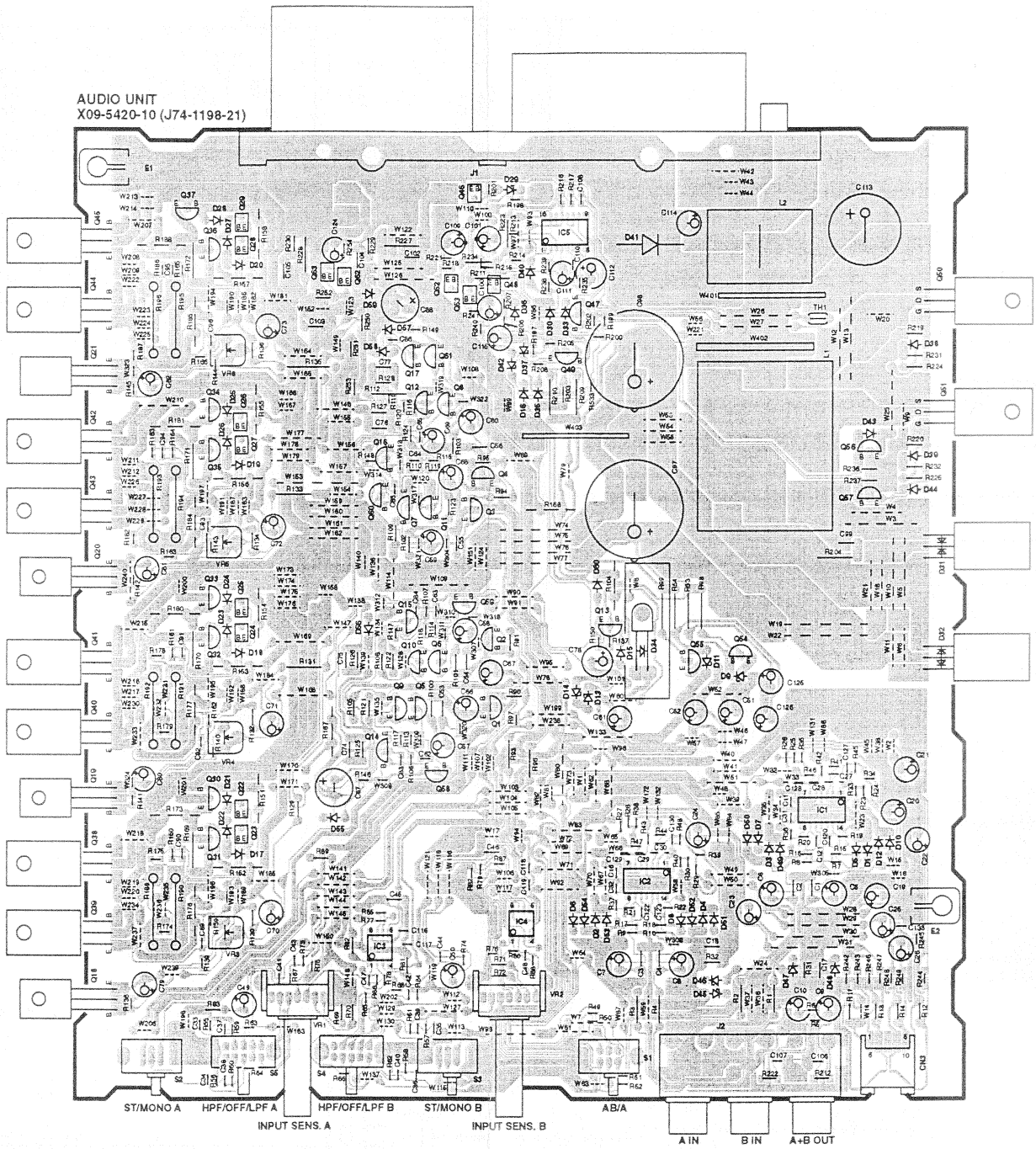
ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	RECEIVER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
	Connect a cassette receiver or CD receiver.						
1	IDEL CURRENT	-	Connect a DC voltmeter between CN1/CN2 and J1 (SP.OUT, L+/R-)	VOLUME : 0	(A) VR3 (L ch) VR4 (R ch) (B) VR5 (L ch) VR6 (R ch)	2.5mV	(a)



PC BOARD (Component side view)

AUDIO UNIT
X09-5420-10 (J74-1198-21)



(X09-5420-10)

Ref.No.	IC1	IC2	IC3	IC4	IC5	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
Address	4D	5C	5B	5C	2C	4C	4C	3C	3C	4B	4B	3B	3B	4B	4B	3B	3B	4C	4B	4B	3B	3B	5A	4A	3A

Ref.No.	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40
Address	3A	4B	5B	4B	4B	3B	3B	2B	2B	4A	5A	4A	4A	3B	3B	2B	2A	5A	5A	4A

Ref.No.	Q41	Q42	Q43	Q44	Q45	Q46	Q47	Q48	Q49	Q50	Q51	Q52	Q53	Q54	Q55	Q56	Q57	Q58	Q59	Q60	Q61	Q62	Q63
Address	4A	3A	3A	2A	2A	2C	2C	2C	3C	2E	3E	2B	2C	4D	4D	3D	3D	4B	4C	3B	3B	2B	2B

Refer to the schematic diagram for the value of resistors and capacitors.

AUDIO UNIT (X09-5420-10)

IC1 INPUT BUFFER / ISOLATION AMPLIFIER

IC1(4/4) IC1(1/4) IC1(3/4) IC1(2/4)

IC3(1/2) LPF

IC3(2/2) INPUT SENSITIVITY INVERTER

S5 FILTER SW HPF ← OFF → LPF

VR1 10K(A)

S6 OPERATION SW MO ↔ ST

S2 INPUT SELECTOR SW AB ↔ A

S1

S3 OPERATION SW MO ↔ ST

CN3

J2

Q1,2 MUTE

Q5,6,9,10 DIFFERENTIAL AMPLIFIER

Q13 RIPPLE FILTER

IDLE. ADJ. (A) CN1

IDLE. ADJ.

Q14,15,58,59 DIFFERENTIAL AMPLIFIER

Q30-33 POWER AMPLIFIER DRIVER

Q38-41 POWER STAGE

Q18,19 TEMPERATURE COMPENSATION

Q22-25 OVER-CURRENT PROTECTION

Q54 Q55 CONSTANT VOLTAGE POWER SUPPLY

Q3,4 MUTE

Q7,8,11,12 DIFFERENTIAL AMPLIFIER

Q16,17,60,61 DIFFERENTIAL AMPLIFIER

Q34-37 POWER AMPLIFIER DRIVER

Q42-45 POWER STAGE

Q20,21 TEMPERATURE COMPENSATION

Q26-29 OVER-CURRENT PROTECTION

IDLE. ADJ. (B) CN2

W401

IC1,2	: NJM2060M
IC3,4	: NJM4565MD
IC5	: UPC494GS
Q1-4,13-17,58-61	: 2SC945(A)(Q,P)
Q5-12,47,49,56,57	: 2SA733(A)(Q,P)
Q18-21	: 2SC4137(V,W)
Q22,25,26,29,46,48,52, 53	: 2SC2412K
Q23,24,27,28	: 2SA1037K
Q30,33,34,37,54	: 2SC1627A
Q31,32,35,36,55	: 2SA817A
Q38,41,42,45	: 2SC4511*B
Q39,40,43,44	: 2SA1725*B
Q50,51	: FKV550T*B

D1-8,10,12,15-28,30, 33,35,36,38-40,43,44, 49-58,60	: 1SS133
D9,11,42	: RD16JS(B)
D13,14	: RD8. 2JS(B)
D29	: RD7. 5JS(B)
D31	: FMU22S*A
D32	: FMU22R*A
D34	: B30-1460-05
D37	: RD10JS(B)
D41	: 1N5406-M
D45-48	: RD5. 1JS(B)

SIGNAL LINE
GND LINE
+B LINE
−B LINE

2SA733(A)
2SA817A
2SC1627A

2SC945(A)

2SC2412K

2SC4137

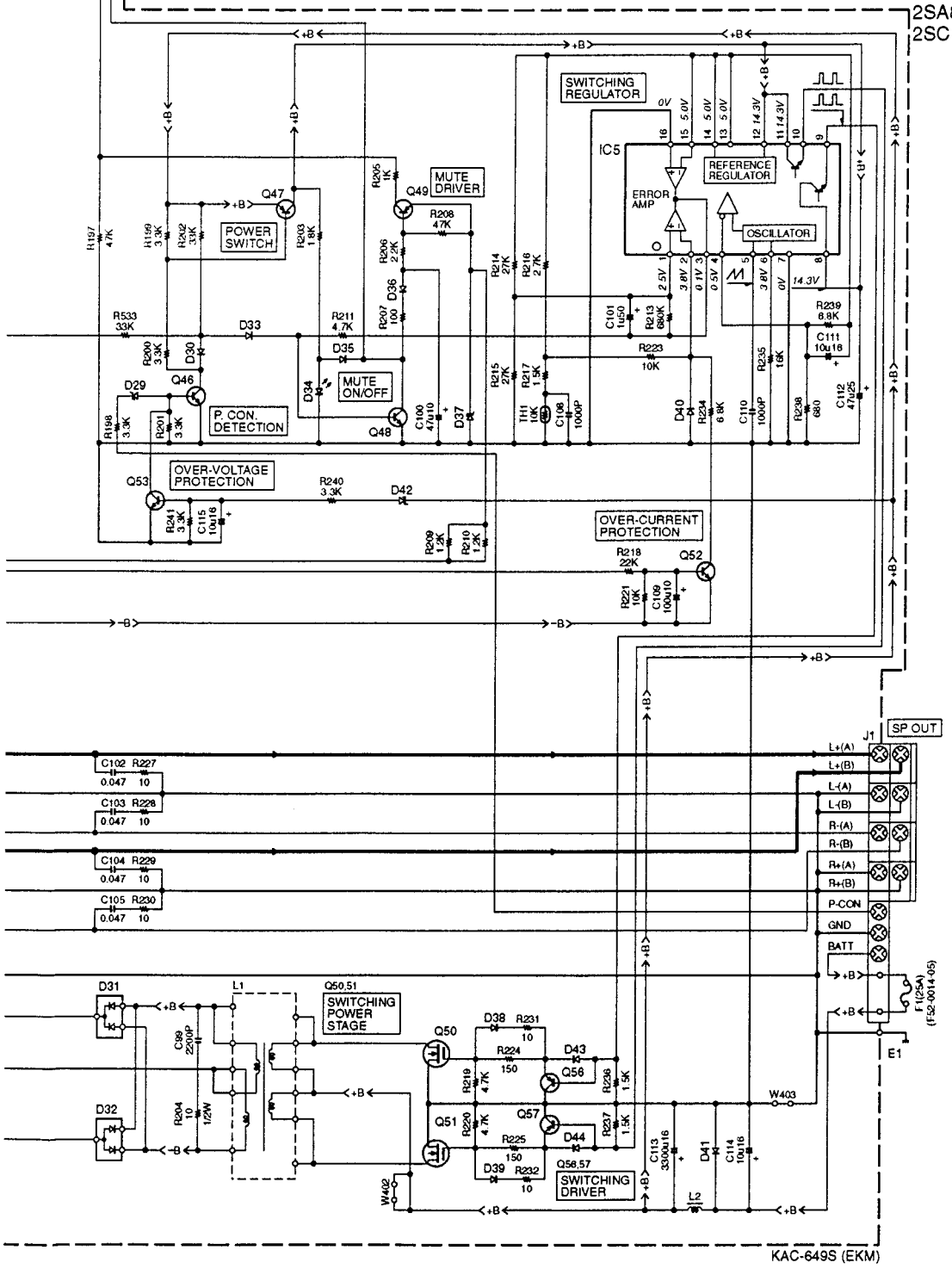
2SA1725*B
2SC4511*B

2SA1037K

NJM4565MD

UPC494GS

NJM2060M



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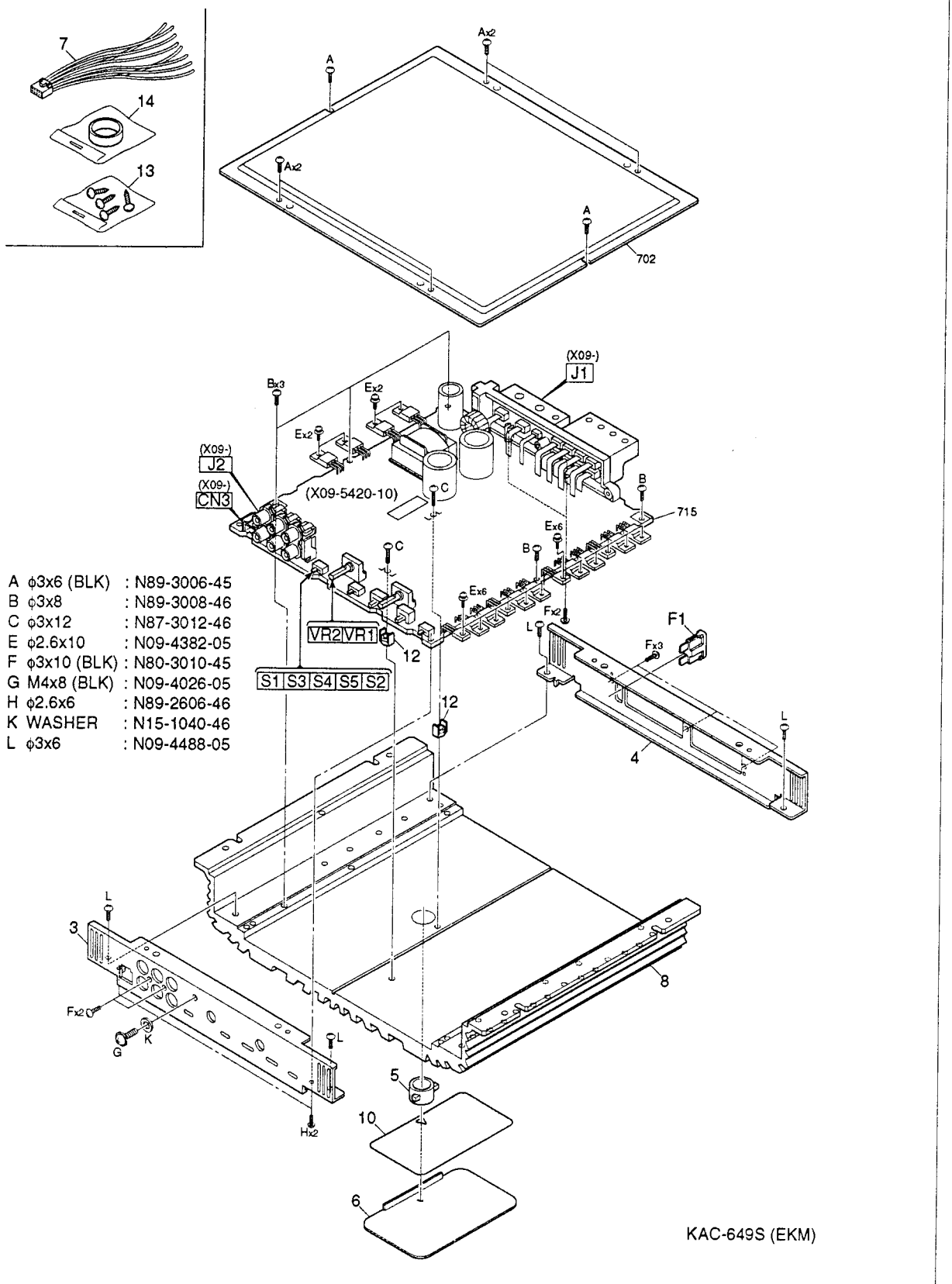
EXPLODED VIEW (UNIT)



Parts with exploded numbers larger than 700 are not supplied.

PARTS LIST

* New Parts
Parts without **Part No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No.	Add	New	Parts No.	Description	Destination
KAC-649S					
3	3A	*	A64-2375-02	FRONT PANEL	
4	2B	*	A84-0284-02	REAR PANEL	
5	3A		B19-2082-04	LIGHTING BOARD	
6	3A	*	B43-1282-03	BADGE	
-			B46-0100-50	WARRANTY CARD	
-		*	B64-1986-00	INST. MANUAL (ENGLISH)	KE1
-		*	B64-1987-00	INST. MANUAL (FRENCH,SPANISH)	KE1
-		*	B64-1988-00	INST. MANUAL (GERMAN,DUTCH)	E1
-		*	B64-1989-00	INST. MANUAL (ITA,POR)	E1
-		*	B64-1990-00	INST. MANUAL (ENGLISH,CHINESE)	M1
7	1A		E30-4949-05	CONNECTING CORD ASSY	
8	3B	*	F01-1663-01	HEAT SINK	
⚠F1	2B		F52-0014-05	FUSE (BLADE TYPE) (25A)	
10	3A		H30-0543-04	ADHESIVE DOUBLE-COATED TAPE	
-			H10-4645-03	POLYSTYRENE FOAMED FIXTURE	
-			H25-0321-04	PROTECTION BAG (600X315X0.03)	
-			H25-0336-04	PROTECTION BAG (170X250X0.03)	
-		*	H54-2081-03	ITEM CARTON CASE	
12	2A		J30-1066-04	SPACER	
13	1A		N99-1587-05	SCREW SET	
A	1A		N89-3006-45	BINDING HEAD TAPTITE SCREW	
B	1A		N89-3008-46	BINDING HEAD TAPTITE SCREW	
C	2A		N87-3012-46	BRAZIER HEAD TAPTITE SCREW	
E	2B		N09-4382-05	TAPTITE SCREW (2.6X10)	
F	2B		N80-3010-45	PAN HEAD TAPTITE SCREW	
G	3A		N09-4026-05	TAPPING SCREW (4X8,TP,S)	
H	3A		N89-2606-46	BINDING HEAD TAPTITE SCREW	
K	2A		N15-1040-46	FLAT WASHER	
L	2B	*	N09-4488-05	TAPTITE SCREW (3X6)	
14	1A		W01-1516-05	TERMINAL COVER SET	
AUDIO UNIT (X09-5420-10)					
D31			B30-1460-05	LED (RED)	
C1 -4			CF92FV1H122J	MF-C 1200PF J	
C5 -8			CE04DW1C100M	ELECTRO 10UF 16WV	
C9 ,10			CE04DW1C220M	ELECTRO 22UF 16WV	
C11			CK73GB1H103K	CHIP C 0.010UF K	
C16			CK73GB1H103K	CHIP C 0.010UF K	
C17,18			CF92FV1H102J	MF-C 1000PF J	
C19-26			CE04DW1C100M	ELECTRO 10UF 16WV	
C27-30			CC73GCH1H150J	CHIP C 15PF J	
C31,32			CK73GB1H103K	CHIP C 0.010UF K	
C33-36			CK73GB1A474K	CHIP C 0.47UF K	
C37-40			CK73GB1A334K	CHIP C 0.33UF K	
C41,42			CK73GB1E473K	CHIP C 0.047UF K	
C43,44			CK73GB1E223K	CHIP C 0.022UF K	
C45,46			CF92FV1H473J	MF-C 0.047UF J	
C47,48			CC73GCH1H220J	CHIP C 22PF J	
C49,50			CE04DW1C100M	ELECTRO 10UF 16WV	
C51,52			CE04DW1C220M	ELECTRO 22UF 16WV	

(X09-5420-10)

Ref. No.	Add	New	Parts No.	Description	Destination
C53 -56			CK45FB1H681K	CERAMIC 680PF K	
C57 -60			CE04DW1C100M	ELECTRO 10UF 16WV	
C61			CE04DW1E470M	ELECTRO 47UF 25WV	
C62 -65			CK73GB1H472K	CHIP C 4700PF K	
C66 -69			CE04DW1E470M	ELECTRO 47UF 25WV	
C70 -73			CE04DW1V100M	ELECTRO 10UF 35WV	
C74 -77			CC45FSL1H060D	CERAMIC 6.0PF D	
C78			CE04DW1E101M	ELECTRO 100UF 25WV	
C79 -82			CE04DW1C100M	ELECTRO 10UF 16WV	
C83 -86			CC73GCH1H101J	CHIP C 100PF J	
C87 ,88			CE04DW1E221M	ELECTRO 220UF 25WV	
C89 -96			CC73GCH1H471J	CHIP C 470PF J	
C97 ,98			C90-5376-05	ELECTRO 3300UF 25WV	
C99			CF92FV1H222J	MF-C 2200PF J	
C100			CE04DW1A470M	ELECTRO 47UF 10WV	
C101			CE04DW1H010M	ELECTRO 1.0UF 50WV	
C102-105			CF92FV1H473J	MF-C 0.047UF J	
C106-108			CK73GB1H102K	CHIP C 1000PF K	
C109			CE04DW1A101M	ELECTRO 100UF 10WV	
C110			CK73GB1H102K	CHIP C 1000PF K	
C111			CE04DW1C100M	ELECTRO 10UF 16WV	
C112			CE04DW1E470M	ELECTRO 47UF 25WV	
C113			C90-2689-05	ELECTRO 3300UF 16WV	
C114,115			CE04DW1C100M	ELECTRO 10UF 16WV	
C116-119			CK73GB1H103K	CHIP C 0.010UF K	
C120-123			CC73GCH1H150J	CHIP C 15PF J	
C125,126			CE04DW1V100M	ELECTRO 10UF 35WV	
C127-130			CC73GCH1H680J	CHIP C 68PF J	
CN1 ,2			E40-3640-05	PIN ASSY	
CN3			E58-0919-05	RECTANGULAR RECEPTACLE	
E1 ,2			E23-0149-05	TERMINAL	
⚠J1			E70-0833-05	SCREW TERMINAL BOARD	
J2			E63-0874-05	PIN JACK	
L1			L19-0556-05	TRANSFORMER FOR CONVERTER	
L2		*	L33-1809-05	CHOKE COIL	
F	2B		N80-3010-45	PAN HEAD TAPTITE SCREW	
R1 -4			RD14BB2C102J	RD 1.0K J 1/6W	
R5 ,6			RK73GB1J473J	CHIP R 47K J 1/16W	
R7 -10			RK73GB1J912J	CHIP R 9.1K J 1/16W	
R11 -14			RD14BB2C222J	RD 2.2K J 1/6W	
R15 -22			RK73GB1J183J	CHIP R 18K J 1/16W	
R23 -30			RK73GB1J513J	CHIP R 51K J 1/16W	
R31 ,32			RD14BB2C102J	RD 1.0K J 1/6W	
R33 -48			RK73GB1J562J	CHIP R 5.6K J 1/16W	
R49 -52			RK73GB1J222J	CHIP R 2.2K J 1/16W	
R53 ,54			RD14BB2C222J	RD 2.2K J 1/6W	
R55 -58			RK73GB1J183J	CHIP R 18K J 1/16W	
R59 -62			RK73GB1J104J	CHIP R 100K J 1/16W	
R63 -66			RK73GB1J683J	CHIP R 68K J 1/16W	
R67 ,68			RK73GB1J433J	CHIP R 43K J 1/16W	
R69 -72			RD14BB2C561J	RD 560 J 1/6W	
R73 ,74			RK73GB1J433J	CHIP R 43K J 1/16W	
R75 ,76			RK73GB1J623J	CHIP R 62K J 1/16W	

E : Europe K : North America M : Other Areas

⚠ indicates safety critical components.

KAC-649S

PARTS LIST

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Ref. No.	Add	New	Parts No.	Description				Destination
R77			RK73GB1J302J	CHIP R	3.0K	J	1/16W	
R78			RK73GB1J153J	CHIP R	15K	J	1/16W	
R79			RK73GB1J302J	CHIP R	3.0K	J	1/16W	
R80			RK73GB1J153J	CHIP R	15K	J	1/16W	
R81			RD14BB2C752J	RD	7.5K	J	1/6W	
R82			RK73GB1J752J	CHIP R	7.5K	J	1/16W	
R83			RD14BB2C473J	RD	47K	J	1/6W	
R84			RK73GB1J473J	CHIP R	47K	J	1/16W	
R85			RK73GB1J682J	CHIP R	6.8K	J	1/16W	
R86			RK73GB1J153J	CHIP R	15K	J	1/16W	
R87			RK73GB1J682J	CHIP R	6.8K	J	1/16W	
R88			RK73GB1J153J	CHIP R	15K	J	1/16W	
R89			RD14BB2C332J	RD	3.3K	J	1/6W	
R90,91			RD14BB2C472J	RD	4.7K	J	1/6W	
R92,93			RD14BB2C332J	RD	3.3K	J	1/6W	
R94,95			RD14BB2C472J	RD	4.7K	J	1/6W	
R96			RD14BB2C332J	RD	3.3K	J	1/6W	
R97			RK73GB1J154J	CHIP R	150K	J	1/16W	
R98,99			RD14BB2E100J	RD	10	J	1/4W	
R100-103			RD14BB2C183J	RD	18K	J	1/6W	
R104			RD14NB2E471J	RD	470	J	1/4W	
R105			RD14BB2C822J	RD	8.2K	J	1/6W	
R106,107			RK73GB1J821J	CHIP R	820	J	1/16W	
R108,109			RD14BB2C822J	RD	8.2K	J	1/6W	
R110,111			RK73GB1J821J	CHIP R	820	J	1/16W	
R112			RD14BB2C822J	RD	8.2K	J	1/6W	
R113-116			RK73GB1J101J	CHIP R	100	J	1/16W	
R117-120			RK73GB1J821J	CHIP R	820	J	1/16W	
R121-124			RD14BB2C621J	RD	620	J	1/6W	
R125-128			RD14BB2C183J	RD	18K	J	1/6W	
R129-136			RD14BB2C332J	RD	3.3K	J	1/6W	
R137			RK73GB1J103J	CHIP R	10K	J	1/16W	
R138			RK73GB1J222J	CHIP R	2.2K	J	1/16W	
R139,140			RK73GB1J621J	CHIP R	620	J	1/16W	
R141,142			RK73GB1J222J	CHIP R	2.2K	J	1/16W	
R143,144			RK73GB1J621J	CHIP R	620	J	1/16W	
R145			RK73GB1J222J	CHIP R	2.2K	J	1/16W	
R146-149			RK73GB1J820J	CHIP R	82	J	1/16W	
R150			RK73GB1J101J	CHIP R	100	J	1/16W	
R151-158			RD14NB2E101J	RD	100	J	1/4W	
R159-166			RK73GB1J362J	CHIP R	3.6K	J	1/16W	
R167,168			RD14NB2E100J	RD	10	J	1/4W	
R169-172			RD14BB2E221J	RD	220	J	1/4W	
R173			RD14NB2E2R2J	RD	2.2	J	1/4W	
R174,175			RK73GB1J182J	CHIP R	1.8K	J	1/16W	
R176,177			RD14NB2E2R2J	RD	2.2	J	1/4W	
R178,179			RK73GB1J182J	CHIP R	1.8K	J	1/16W	
R180,181			RD14NB2E2R2J	RD	2.2	J	1/4W	
R182,183			RK73GB1J182J	CHIP R	1.8K	J	1/16W	
R184,185			RD14NB2E2R2J	RD	2.2	J	1/4W	
R186,187			RK73GB1J182J	CHIP R	1.8K	J	1/16W	
R188			RD14NB2E2R2J	RD	2.2	J	1/4W	
R189-196			R92-2115-05	METAL FILM	0.1	J	2W	
R197			RK73GB1J473J	CHIP R	47K	J	1/16W	
R198-201			RK73GB1J332J	CHIP R	3.3K	J	1/16W	

(X09-5420-10)

Ref. No.	Add	New	Parts No.	Description				Destination
R202			RK73GB1J333J	CHIP R	33K	J	1/16W	
R203			RD14BB2C182J	RD	1.8K	J	1/6W	
R204			RD14DB2H100J	SMALL-RD	10	J	1/2W	
R205			RK73GB1J102J	CHIP R	1.0K	J	1/16W	
R206			RK73GB1J222J	CHIP R	2.2K	J	1/16W	
R207			RK73GB1J101J	CHIP R	100	J	1/16W	
R208			RK73GB1J473J	CHIP R	47K	J	1/16W	
R209,210			RD14BB2E122J	RD	1.2K	J	1/4W	
R211			RD14BB2C472J	RD	4.7K	J	1/6W	
R212			RK73EB2B301J	CHIP R	300	J	1/8W	
R213			RK73GB1J684J	CHIP R	680K	J	1/16W	
R214,215			RK73GB1J273J	CHIP R	27K	J	1/16W	
R216			RK73GB1J272J	CHIP R	2.7K	J	1/16W	
R217			RK73GB1J152J	CHIP R	1.5K	J	1/16W	
R218			RK73GB1J223J	CHIP R	22K	J	1/16W	
R219,220			RD14BB2C472J	RD	4.7K	J	1/6W	
R221			RK73GB1J103J	CHIP R	10K	J	1/16W	
R222			RK73EB2B301J	CHIP R	300	J	1/8W	
R223			RD14BB2C103J	RD	10K	J	1/6W	
R224,225			RD14BB2C151J	RD	150	J	1/6W	
R227-230			RD14BB2E100J	RD	10	J	1/4W	
R231,232			RD14BB2C100J	RD	10	J	1/6W	
R233			RK73GB1J103J	CHIP R	10K	J	1/16W	
R234			RD14BB2C682J	RD	6.8K	J	1/6W	
R235			RK73GB1J163J	CHIP R	16K	J	1/16W	
R236,237			RD14BB2C152J	RD	1.5K	J	1/6W	
R238			RK73GB1J681J	CHIP R	680	J	1/16W	
R239			RK73GB1J682J	CHIP R	6.8K	J	1/16W	
R240,241			RK73GB1J332J	CHIP R	3.3K	J	1/16W	
R242-249			RK73EB2B123J	CHIP R	12K	J	1/8W	
R501-532			RD14BB2E472J	RD	4.7K	J	1/4W	
R533			RK73GB1J333J	CHIP R	33K	J	1/16W	
VR1,2			R31-0232-05	VARIABLE RESISTOR				
VR3-6			R32-0030-05	SEMI FIXED VARIABLE RESISTOR				
W304-324			R92-1252-05	CHIP R 0 OHM				
S1-3			S62-0842-05	SLIDE SWITCH				
S4,5			S31-2630-05	SLIDE SWITCH				
D1-8			1SS133	DIODE				
D9			RD16JS(B)	ZENER DIODE				
D10			1SS133	DIODE				
D11			RD16JS(B)	ZENER DIODE				
D12			1SS133	DIODE				
D13,14			RD8.2JS(B)	ZENER DIODE				
D15-28			1SS133	DIODE				
D29			RD7.5JS(B)	ZENER DIODE				
D30			1SS133	DIODE				
D31			FMU22S*A	DIODE				
D32			FMU22R*A	DIODE				
D33			1SS133	DIODE				
D35,36			1SS133	DIODE				
D37			RD10JS(B)	ZENER DIODE				
D38-40			1SS133	DIODE				
D41			1N5406-M	DIODE				
D42			RD16JS(B)	ZENER DIODE				

E : Europe K : North America M : Other Areas

⚠ indicates safety critical components.

PARTS LIST

* New Parts
Parts without **Part No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No.	Add	New	Parts No.	Description	Destination
D43 ,44			1SS133	DIODE	
D45 -48			RD5.1JS(B)	ZENER DIODE	
D49 -58			1SS133	DIODE	
D60			1SS133	DIODE	
IC1 ,2			NJM2060M	ANALOGUE IC	
IC3 ,4			NJM4565MD	IC(OP AMP X2)	
IC5			UPC494GS	ANALOGUE IC	
Q1 -4			2SC945(A)(Q,P)	TRANSISTOR	
Q5 -12			2SA733(A)(Q,P)	TRANSISTOR	
Q13 -17			2SC945(A)(Q,P)	TRANSISTOR	
Q18 -21			2SC4137(V,W)	TRANSISTOR	
Q22			2SC2412K	TRANSISTOR	
Q23 ,24			2SA1037K	TRANSISTOR	
Q25 ,26			2SC2412K	TRANSISTOR	
Q27 ,28			2SA1037K	TRANSISTOR	
Q29			2SC2412K	TRANSISTOR	
Q30			2SC1627A	TRANSISTOR	
Q31 ,32			2SA817A	TRANSISTOR	
Q33 ,34			2SC1627A	TRANSISTOR	
Q35 ,36			2SA817A	TRANSISTOR	
Q37			2SC1627A	TRANSISTOR	
Q38			2SC4511*B	TRANSISTOR	
Q39 ,40			2SA1725*B	TRANSISTOR	
Q41 ,42			2SC4511*B	TRANSISTOR	
Q43 ,44			2SA1725*B	TRANSISTOR	
Q45			2SC4511*B	TRANSISTOR	
Q46			2SC2412K	TRANSISTOR	
Q47			2SA733(A)(Q,P)	TRANSISTOR	
Q48			2SC2412K	TRANSISTOR	
Q49			2SA733(A)(Q,P)	TRANSISTOR	
Q50 ,51			FKV550T*B	FET	
Q52 ,53			2SC2412K	TRANSISTOR	
Q54			2SC1627A	TRANSISTOR	
Q55			2SA817A	TRANSISTOR	
Q56 ,57			2SA733(A)(Q,P)	TRANSISTOR	
Q58 -61			2SC945(A)(Q,P)	TRANSISTOR	
TH1			ERT-D2ZHL103S	THERMISTOR	

Ref. No.	Add	New	Parts No.	Description	Destination

E : Europe K : North America M : Other Areas

⚠ indicates safety critical components.

KAC-649S

SPECIFICATIONS

Audio Section

Rated Power Output (4Ω)
- A, B Channel (20-20KHz, 0.08% THD) ..... 30W x 4
- A, B Channel (DIN45324, +B=14.4V) ..... 30W x 4

Rated Power Output (2Ω)
- A, B Channel (1KHz, 0.8% THD) ..... 40W x 4

Bridged Power Output (4Ω, 1KHz, 0.8% THD) ..... 80W x 2
Max Power Output (4Ω, Normal) ..... 60W x 4
Max Power Output (4Ω, Bridge) ..... 160W x 2
Low Pass Filter (A, B channel, 12dB/oct.) 80Hz
High Pass Filter (A, B channel, 12dB/oct.) 150Hz
Frequency Response (+0, -3dB) ..... 5Hz - 50KHz
Signal to Noise Ratio 100dB
Sensitivity (Max) (rated output) 0.2V
Sensitivity (Min) (rated output) 5.0V
Input Impedance 10KΩ

General

Operating Voltage (11V-16V allowable) 14.4V
Current Consumption (1KHz, 10% THD) 18A
Installation Size (Width x Height x Depth) ..... 261mm x 57mm x 220mm
Weight 3.0Kg

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

KENWOOD CORPORATION

14-6, Dogenzaka 1-chome, Shibuya-ku, Tokyo, 150-8501 Japan

KENWOOD SERVICE CORPORATION
P.O. Box 22745, 2201 East Dominguez Street,
Long Beach, CA90801-5745, U.S.A.

KENWOOD ELECTRONICS CANADA INC.
6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

KENWOOD ELECTRONICS LATIN AMERICA S.A.
P.O. Box 55-2791 Paitilla, Plaza Credicorp Bank Panama,
Piso 9, Oficina 901, Calle 50, Panama, Republic of Panama

KENWOOD ELECTRONICS BRASIL LTDA.
Av. Moema, 170-17°, Andar-Cobertura "B",
Ed. Maximum Service Center, 04077-020 Moema,
São Paulo-SP-Brasil

KENWOOD ELECTRONICS UK LIMITED
Kenwood House, Dwight Road, Watford,
Herts, WD1 8EB, United Kingdom

KENWOOD ELECTRONICS DEUTSCHLAND GMBH
Rembrücker Str. 15, 63150 Heusenstamm, Germany

KENWOOD ELECTRONICS FRANCE S.A.
13, Boulevard Ney, 75018 Paris, France

KENWOOD ELECTRONICS BELGIUM N.V.
Mechelsesteenweg 418, B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS ITALIA S.p.A.
Via G. Sirtori 7/9, 20129 Milano, Italy

KENWOOD IBÉRICA S.A.
Bolivia, 239-08020 Barcelona, Spain

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD.
(A.C.N. 001 499 074)
16 Giffnock Avenue, Centrecourt Estate, North Ryde,
N.S.W. 2113, Australia

KENWOOD ELECTRONICS (HONG KONG) LTD.
Unit 3712-3724, Level 37, Tower 1, Metroplaza,
223 Hing Fong Road, Kwai Fong, N.T., Hong Kong

KENWOOD ELECTRONICS GULF FZE
P.O.Box 61318, Jebel Ali, Dubai, U.A.E.

KENWOOD ELECTRONICS (THAILAND) CO., LTD.
2019 New Pechburi Road, Bangkapi, Huaykwang,
Bangkok, 10320 Thailand

KENWOOD ELECTRONICS SINGAPORE PTE LTD.
1 Genting Lane, #07-00, Kenwood Building, Singapore 349544

KENWOOD ELECTRONICS (MALAYSIA) SDN BHD
#4.01 Level 4, Wisma Academy Lot 4A, Jalan 19/1,
46300 Petaling Jaya, Selangor Darul Ehsan, Malaysia